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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/683,559	10/10/2003	Patrick T. Mather	UCON-166.1 98121.00083	7909
23413	7590	06/02/2006		
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			EXAMINER PEZZUTO, HELEN LEE	
			ART UNIT	PAPER NUMBER
			1713	
DATE MAILED: 06/02/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/683,559	Applicant(s) MATHER ET AL.	
	Examiner Helen L. Pezzuto	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/20/06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13, 15, 22-24 and 32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15, 22-24 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/28/06</u> | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

Applicant's amendment to claim 5, the cancellation of claims 14, 16-21, and the addition of claim 32 filed in the response on 3/20/06 is acknowledged. Currently, claims 1-13, 15, 22-24, and 32 are pending in this application. In light of applicant's remarks filed on 3/20/06, Shadduck is hereby omitted as an applied reference.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-13, 15, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grubbs et al. (US-785) or Tsunogae et al. (US-154) in view of Dragutan et al. (Polymer Preprints) or Demonceau et al. (J. Mol. Catalysis) or Sato et al. (J. Macromol. Sci-Chem).

US 5,728,785 to Grubbs et al. discloses a process of producing polycycloolefin having high crosslink density.

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Suitable monomer includes monocyclic olefins. Prior art specifically teach curing polymer formed from metathesis reaction at elevated temperature in the presence of peroxide crosslinking agents (col. 3, line 26 to col. 4, line 16).

US 6,713,154 to Tsunogae et al. discloses a process of producing a curable cycloolefin polymer composition with utility as insulating materials. Suitable monomer includes monocyclic cycloolefin monomer such as cyclooctene (col. 9, line 41). Prior art curable cycloolefin polymer composition is formed in the presence of a peroxide hardener (col. 13, line 28 to col. 14, line 4).

US-785 and US-154 are silent regarding the utility of the crosslinked polycyclooctene as shape memory polymer as recited in the preamble in the present claims. The examiner is of the position that such utility/properties associated with the utility would be considered inherent in prior art crosslinked polycyclooctene, absent evidence that the respective crosslinked polycyclooctene do in fact differ. Furthermore, it is well known that the intended use clause found in the preamble is not afforded the effect of a distinguishing limitation unless the body of the claims set forth limitation that refers to the specific environment or use specified in the preamble. Regarding the choice of cis-cyclooctene having high trans double bond

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content, the examiner is of the position that it would have been obvious to one skilled in the art to carried out via experimental control such as choice of catalyst, monomer concentration, temperature, solvent media, and reaction time, as expressly shown in the ancillary references. Absent showing of criticality and/or unexpected results shown for the 68 to about 81% trans double bond content recited in claim 32, the examiner is of the position that discovering the optimum or workable ranges within the guideline of prior art general disclosure would involve only routine skill in the art. Accordingly, one having ordinary skill in the art would readily envisage the synthesis of a crosslinked polycyclooctene shape memory polymer as taught, sufficiently motivated by the reasonable expectation of success.

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 2003/0114777A1 is hereby made of record to show the known utility of polycyclooctene as shape memory polymer.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS

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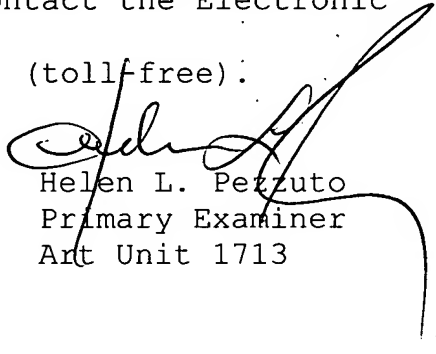
of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen L. Pezzuto whose telephone number is (571) 272-1108. The examiner can normally be reached on 8 AM to 4 PM, Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Helen L. Perzuto
Primary Examiner
Art Unit 1713

hlp